

been already furnished by the genus *Phalansterium*, Cienkowski, as reported by Prof. Clark*; but a reference to the original description and illustration in Schultze's 'Archiv,' Bd. vi. S. 4, 1870, has elicited that this colony form is composed of the more simple flagellate Holostomatous monads, and not of the collar-bearing or Discostomatous varieties. Should this missing link be discovered, it will, while closely related to and forming a natural group of the true sponges, occupy the same relation towards the Gymnozoidal or free and independent Discostomatous types as the social and slime-immersed genus *Ophrydium* does to *Vorticella*, *Vaginicola*, or other naked and solitary representatives of the higher ciliate order of the Infusoria.

4 Marine Terrace, St. Helier's, Jersey,
Oct. 12, 1877.

II.—*Notices of British Fungi.* By the Rev. M. J. BERKELEY, M.A., F.L.S., and C. E. BROOME, Esq., F.L.S.

[Continued from ser. 4. vol. xvii. p. 145.]

[Plates III. & IV.]

1631. *Agaricus* (*Amanita*) *magnificus*, Fr. Hym. Eur. p. 25; Fl. Dan. t. 2146.

In fir-woods. Glamis, Rev. J. Stevenson, no. 707.

Our plant differs from the figure quoted above in having a bulbous base.

Pileus campanulate, even, with scattered mealy patches; stem attenuated upwards, transversely scaly. Whole plant dark liver-red, with the exception of the white adnexed gills. Allied to *A. rubescens*, but quite distinct, though variable. Fl. Dan. tab. 2148. fig. 2, which is referred by Fries to this species, has, like the agaric before us, a bulbous base. The wartless variety of *A. muscarius* occurred last autumn more than once at Coed Coch, and was very beautiful.

1632. *A.* (*Lepiota*) *rhacodes*, subsp. *puellaris*, Fr. Hym. Eur. p. 29.

In woods. Coed Coch. Not uncommon.

1633. *A.* (*Lepiota*) *biornatus*, B. & Br., Journ. Linn. Soc. xi. p. 502.

In great abundance in a melon-frame, Arthingworth,

* Silliman's 'American Journal,' Feb. 1871; Ann. & Mag. Nat. Hist. March 1871.

Northants, July 8, 1876. Exactly agreeing with the Ceylon specimens, except that the gills are not ventricose.

1634. *A. (Lepiota) seminudus*, Lasch.; Fr. Hym. Eur. p. 38.

King's Lynn, Mr. Plowright. A very delicate little plant.

**A. (Lepiota) gliodermus*, Fr. Ic. t. 15. fig. 1.

Perthshire, Dr. Buchanan White.

1635. *A. (Armillaria) hamatites*, B. & Br. Pileo hemisphaerico jecorino sicco hispidulo; stipite concolori deorsum incrassato, solido; annulo spongioso; lamellis breviter decurrentibus.

Amongst fir-leaves. Glamis, Rev. J. Stevenson.

Pileus about 1 inch across; stem 2 inches high, $\frac{1}{4}$ inch thick at the base; ring scaly beneath.

We cannot point out any species to which it is allied. Like *A. subcaeus* it is analogous to *Lepiote*.

1636. *A. (Tricholoma) cerinus*, Pers. Syn. p. 321; Fr. Ic. t. 39. fig. 1.

On a lawn. Ballinluig, Rev. J. Stevenson, no. 902.

The yellow gills, contrasted with the brown pileus, make it a very pretty species. The pileus in our specimens is brown, which seems to be the more usual colour; but it is sometimes yellow.

**A. (Tricholoma) tigrinus*, Schæff. t. 89; Fr. Ic. t. 41 *inf.*

Rev. J. Stevenson, no. 900. On the sea-shore.

Allied to *A. gambosus*.

It varies a good deal in the scaliness of the pileus. Mr. W. S. Smith's plant from Reigate is presumably the same; but ours can scarcely be called fœtid (Cooke, Handb. p. 33).

1637. *A. (Clitocybe) socialis*, Fr. Ic. t. 49. fig. 2; Hym. Eur. p. 83.

Amongst fir-leaves. Downton, Herefordshire. Hereford Fungus Show, 1876.

1638. *A. (Clitocybe) amarella*, P.; Fr. Hym. Eur. p. 84.

In woods. Coed Coch, Oct. 19, 1876.

The taste is bitter and disgusting, the smell that of prussic acid.

1639. *A. (Mycena) rubro-marginatus*, Fr. Hym. Eur. p. 132.

Var. *fusco-purpureus*, Lasch.

Amongst dead leaves. East Farleigh.

Very distinct from the usual form, having much the appearance of an exotic *Marasmius*.

1640. *A. (Mycena) Zephirus*, Fr. Ic. t. 78. fig. 6; Hym. Eur. p. 133.

On decayed wood. Rev. J. Stevenson. Rose-coloured.

**A.* (*Mycena*) *parabolicus*, Fr. Ic. t. 80. fig. 3.

On decayed wood. East Farleigh, Sept. 13, 1876.

**A.* (*Mycena*) *atro-cyaneus*, Batsch; Fr. Hym. Eur. p. 141.

On the ground. Glamis, Rev. J. Stevenson.

1641. *A.* (*Mycena*) *plicosus*, Fr. Ic. t. 81. fig. 4; Hym. Eur. p. 142.

Killin, Rev. J. Stevenson.

1642. *A.* (*Mycena*) *amictus*, Fr. Ic. t. 82. fig. 3; Hym. Eur. p. 144.

Amongst leaves. Glamis, Rev. J. Stevenson.

1643. *A.* (*Omphalia*) *hydrogrammus*, Fr. Ic. tab. 71; Hym. Eur. p. 154.

Coed Coch, Oct. 1876.

1644. *A.* (*Omphalia*) *umbilicatus*, Schæff.; Fr. Ic. t. 73. fig. 1; Hym. Eur. p. 155.

Amongst moss. Perth, Dr. Buchanan White.

1645. *A.* (*Omphalia*) *maurus*, Fr. Ic. tab. 73. fig. 2; Hym. Eur. p. 156.

On lawns. Coed Coch.

1646. *A.* (*Omphalia*) *stricpileus*, Fr. Ic. t. 73. f. 3; Hym. Eur. p. 157.

Amongst moss and leaves. Glamis, Rev. J. Stevenson.

1647. *A.* (*Omphalia*) *pictus*, Fr. Ic. t. 77. fig. 4; Hym. Eur. p. 163.

Killin, Rev. J. Stevenson.

**A.* (*Pleurotus*) *mutilus*, Fr. Syst. Myc. i. p. 191; Ic. tab. 88. f. 4.

Perthshire, Dr. Buchanan White.

1648. *A.* (*Pleurotus*) *reniformis*, Fr. Ic. t. 89. fig. 3; Hym. Eur. p. 177.

On branches of silver fir. Glamis, Rev. J. Stevenson.

1649. *A.* (*Leptonia*) *æthiops*, Fr. Ep. p. 152; Ic. t. 97. fig. 3.

Perthshire, Dr. Buchanan White. Glamis, Rev. J. Stevenson.

1650. *A.* (*Nolanea*) *fulvo-strigosus*, B. & Br. Pileo conico griseo ruguloso; stipite tenui furfuraceo-squamuloso, basi strigis lateritiis hispido; lamellis adnatis griseis.

On the ground in a wood, near *Cortinarius Bulliardii*.

East Farleigh, Sept. 13, 1876.

Pileus $\frac{3}{4}$ inch across, $\frac{1}{2}$ inch high; stem 2 inches high, about 1 line thick, clothed at the base with rigid red hairs and tinted with the same colour above. Spores .0005 long, .0003 broad. The peculiar character of the strigæ separates this from all other species.

1651. *A. (Eccilia) nigrella*, Pers. Syn. p. 463.

Perthshire, Dr. Buchanan White.

This appears to be quite distinct from *A. atrides*; the stem is not nigro-punctate above, nor are the gills nigro-denticulate.

1652. *A. (Pholiota) Vahlîi*, Schum., in Fl. Dan. t. 1496; Fr. Hym. Eur. p. 214.

On the grassy banks of the railroad. Inver, Dunkeld, Mr. M'Intosh.

Fries makes this a variety of *A. aureus*. Our plant is exactly that of the 'Flora Danica.'

**A. (Pholiota) terrigenus*, Kalkb.

Ballinluig, Rev. J. Stevenson, no. 960.

1653. *A. (Inocybe) dulcarnarus*, Pers. Ic. pict. tab. xv. fig. 2.

On the ground. Pass of Killiecrankie, Rev. J. Stevenson, no. 950.

We suppose this to be the plant of Persoon, at least that figured in the 'Icones;' but as the gills are peculiar we think it better to give a description.

Pileus convex, umbonate, umber, clothed with adpressed fibres, the centre breaking up into areolate patches, about $\frac{1}{3}$ — $\frac{1}{2}$ inch across; stem 1 inch or more high, 1 line thick, of the same colour as the pileus, scaly below, tomentose above; gills clay-coloured, ventricose, margin paler, waved, adnate, with a strong decurrent tooth; spores even; flesh white; taste at first pleasant. In one specimen the gills are just as figured by Persoon. Though he gives in his specific character *stipite nudo*, the stem is represented in the figure as scaly. In *A. furfuraceus* we find in the same group specimens with decurrent and others with adnate gills.

1654. *A. (Inocybe) cincinnatus*, Fr. Hym. Eur. p. 228.

Amongst moss. Coed Coch.

Spores granulated or irregular.

This appears to be what Quélet figures under the name of *A. dulcarnarus*, his *A. cincinnatus* being rather referable to that species.

1655. *A. (Inocybe) carptus*, Fr. Hym. Eur. p. 230.

On the naked soil. Coed Coch.

Spores even.

In this very difficult subgenus it is of great consequence to ascertain the nature of the spores, which are sometimes quite even, at others granulated or irregular in outline, like those of so many of the *Hyporhodii*.

1656. *A. (Inocybe) Triniî*, Weinm. p. 194; Fr. Hym. Eur. p. 223.

Ballinluig, Rev. J. Stevenson.

Spores strongly granulated.

**A. (Galera) minutus*, Quélet, iii. p. 10, tab. 1. f. 5.

In woods amongst moss. Wrotham, Kent, Oct. 1, 1875.

1657. *A. (Tubaria) cupularis*, Bull. t. 554. f. 2; Fr. Hym. Eur. p. 272.

Ballinluig, Rev. J. Stevenson, no. 919.

**A. (Crepidotus) Rubi*, B.; Fr. Hym. Eur. p. 276.

Perthshire, Dr. Buchanan White.

1658. *A. (Crepidotus) Phillipsii*, B. & Br. Pumilus, umbrinellus; pileo obliquo striato glabro; stipite basi incurvo solido; lamellis angustis ventricosis, breviter adnatis.

On grass. Wrekin, W. Phillips, Esq.

Pileus about 3 lines across, stem 1-1½ line high, spores .0002 long. A very distinct species.

1659. *A. (Stropharia) thraustus*, Kalkb. Fung. Hung. tab. 15. f. 4; Fr. Hym. Eur. p. 286, sub *A. squamoso*.

Rannock, Dr. Buchanan White.

1660. *A. (Stropharia) scobinaceus*, Fr. Hym. Eur. p. 288.

Glamis, Rev. J. Anderson. Two forms occur, one much more slender.

1661. *A. (Psilocybe) ammophilus*, Mont. & Dur. Exp. Sc. Alg. tab. 31.

On sand. St. Andrews, where it is abundant, Rev. M. Anderson. There is no doubt that it is a true *Psilocybe*.

Spores .0005 long, .00035 wide.

**A. (Psathyra) Gordoni*, B. & Br.; Fr. Hym. Eur. p. 308. *A. aulacinus*, Fr. Mon. ii. p. 348.

Abundant on the wood of a cold frame. Coed Coch, Oct. 31, 1876.

1662. *A. (Panæolus) sphinctrinus*, Fr. Hym. Eur. p. 311; Quélet, tab. 8. fig. 5.

Glamis, Rev. J. Stevenson.

The slender form figured by Quélet.

1663. *Cortinarius (Telamonia) quadricolor*, Fr. Hym. Eur. p. 378.

Coed Coch, Oct. 1876.

1664. *C. (Hydrocybe) dilutus*, Fr. Hym. Eur. p. 389.

Coed Coch, Oct. 1876.

1665. *C. (Hydrocybe) erythrinus*, Fr. Hym. Eur. p. 396.

In woods. Coed Coch, Oct. 1876.

1666. *Paxillus spilomeolus*, Fr. Hym. Eur. p. 402; Hoffm. Ic. tab. 10. fig. 1.

Stoke Poges, M. Terry, Esq.

The spotted pileus and dingy spores at once distinguish it from any *Tricholomata* with which it might be confounded.

The stem is sometimes incrassate at the base, sometimes quite equal.

**P. leptopus*, Fr. Hym. Eur. p. 403.

King's Lynn, Mr. Plowright. Perthshire, Dr. Buchanan White.

1667. *Hygrophorus pulverulentus*, B. & Br. Parvus; pileo viscoso pulvinato candido; margine involuto tomentososo; stipite subæquali farcto, ima basi attenuato, toto roseo-pulverulento-punctato; lamellis crassis decurrentibus acie obtusis albidis.

Amongst pine-leaves. Glamis, Rev. J. Stevenson, no. 840.

Pileus about $\frac{1}{3}$ inch across, stem $\frac{3}{4}$ inch high, 1-2 lines thick. Allied to *H. eburneus*; but the rose-coloured meal with which the stem is covered separates it from all other species.

1668. *H. nemoreus*, Fr. Hym. Eur. p. 413 (not of Persoon).

Stoke Poges, M. Terry, Dec. 1876.

Spores white.

1669. *H. cinereus*, Fr. Ätl. Svamp. t. 30, in part.

Rannoch, Dr. Buchanan White.

1670. *H. subradiatus*, Fr. Hym. Eur. p. 416.

Glamis, Rev. J. Stevenson, no. 574. In pastures.

**H. turundus*, Fr. Hym. Eur. p. 418.

On peat soil. Farragon, Perthshire, at 1700 feet, Rev. J. Stevenson.

The typical form, which is brilliantly coloured. Fries makes our no. 1279 a variety under the name of *H. mollis*. This also occurs in Scotland.

1671. *H. glauco-nitens*, Fr. Hym. Eur. p. 421.

Pass of Killiecrankie, Rev. J. Stevenson. Marston Trussell.

Distinct from *H. nitratus*. Batsch's plant is probably *A. scaber*. It is certainly no *Hygrophorus*.

1672. *Lactarius vietus*, Fr. Hym. Eur. p. 432.

In woods. Stoke Poges, M. Terry. Abundantly.

1673. *L. Terreii*, B. & Br. Cæspitosus; pileo corrugato depresso badio; stipite basi incrassato pileo concolori aurantiaco-tomentoso cavo; lamellis decurrentibus pallidis; odore glycino.

Stoke Poges, M. Terry, Nov. 6, 1876.

Pileus $\frac{1}{2}$ inch across; stem $\frac{3}{4}$ -1 inch high, 2 lines thick. Allied to *L. subdulcis*.

1674. *Russula semicrema*, Fr. Ep. p. 350.

Glamis, Rev. J. Stevenson.

1675. *R. xerampelina*, Schæff.; Fr. Hym. Eur. p. 445.

Glamis, Rev. J. Stevenson.

One of the most distinct species of a very difficult genus.

1676. *R. consobrina*, Fr. Hym. Eur. p. 447.

Glamis, Rev. J. Stevenson.

1677. *Marasmius scorteus*, Fr. Hym. Eur. p. 468.

Perthshire, Aug. 1877, Dr. Buchanan White.

A more delicate and smaller species than *M. oreades*. Dr. White's plant approaches closely Batsch's fig. 109.

1678. *M. torquescens*, Quélet, tab. 23. f. 3; Fr. Hym. Eur. p. 471.

Amongst oak-leaves. Glamis, Rev. J. Stevenson.

The gills are finely serrulated. In the very young plant, when the pileus is conical, there is a slight indication of a veil.

1679. *M. languidus*, Fr. Hym. Eur. p. 473. *Agaricus grossulus*, Pers. Myc. Eur. t. 26. fig. 6.

On dead leaves. East Farleigh, Sept. 13, 1876.

Just intermediate between the normal form and the short-stemmed variety figured by Persoon.

Stems pallid; gills strongly decurrent.

1680. *Panus patellaris*, Fr. Ep. p. 400.

On cherry. Forres, the Rev. J. Keith.

1681. *Merulius laticolor*, B. & Br. Totus effusus adnatus late aurantiacus; margine tomentoso albo; hymenio e laevi plicato-rugoso; plicis distantibus.

On sawdust and leaves. King's Lynn, Mr. Plowright.

We had at first referred this plant to *M. aureus*; but an authentic specimen of that species shows that our fungus is very different and brighter in colour than any other species.

1682. *Polyporus leucomelas*, Fr. Syst. Myc. i. p. 346.

Aviemore, Rev. J. Keith.

A curious esculent species, which attains a considerable size.

Pileus and stem here and there changing to black; flesh soft, marbled, pinkish when exposed to the air; pores white, but soon changing colour, unequal, slightly sinuated, shortly decurrent. Taste pleasant, but slightly astringent. There are two distinct forms figured by Micheli—the one with a short obtuse stem, the other with the stem more equal.

We have authentic specimens of both—of the former from Herr Trog, of the latter from Fries. Mr. Keith's plant belongs to the former state. The fungus was eaten by some small animal, possibly a squirrel.

**Porothelium Friesii*, Mont. in Ann. d. Sc. Nat. 1836; Fr. Hym. Eur. p. 595.

Wothorpe, Oct. 7, 1840.

In studying the genus we find three distinct species which we confounded with *P. Friesii*, from which they differ greatly.

1683. *P. Stevensoni*, B. & Br. Contextu crassiusculo

gelatinoso; margine substuppeo deglubente; hymenii verrucis distinctis, interstitiis glaberrimis; globulo apicali diaphano limpido luteo.

Glamis, May 1877, Rev. J. Stevenson.

1684. *P. Keithii*, B. & Br. Arcte adnatum umbrinellum; ambitu tenuissimo primum subgelatinoso; verrucis brevibus demum collapsis, centro gelatinosis.

Forres, Rev. J. Keith.

1685. *P. confusum*, B. & Br. Arcte adnatum pallidum; margine tenuissimo arachnoideo; contextu primum floccoso-pulverulento; verrucis minoribus.

Glen Tanner, Aberdeenshire. Leigh Wood, C. E. Broome.

1686. *Hydnum* (Resupinatum) *limonicolor*, B. & Br. Adnatum læte citrinum; aculeis confertis acutis brevibus; mycelio candido parco l. obsoleto.

On stone buried amongst pine-leaves. Glamis.

The mycelium when present is distributed amongst the decayed pine-leaves.

1687. *H.* (Resupinatum) *multiforme*, B. & Br. Ochroleucum primitus læve corticiiforme, demum hic illic fertile; aculeis congestis acutissimis, deinde pallidis fimbriatis; contextu floccoso-farinaceo.

Glamis, Menmuir.

Very variable, sometimes almost towy, with the margin inflexed.

1688. *H. sordidum*, Weinm. p. 370; Fr. Hym. Eur. p. 614.

Stoke Poges, M. Terry, Nov. 1876.

1689. *H. nodulosum*, Fr. Hym. Eur. p. 616.

On fir-stumps. Glamis, Rev. J. Stevenson.

1690. *Grandinia crustosa*, Fr., var. *lignorum*, Hym. Eur. p. 627.

On fir. Glamis, Rev. J. Stevenson.

1691. *G. mucida*, Fr. Hym. Eur. p. 626.

Glamis, Rev. J. Stevenson, no. 867.

1692. *Cladoderris minima*, B. & Br. Alba; e basi stipitiformi vel obsoleta oriunda, resupinata; pileo tomentoso; hymenio e costis ramosis radiato.

On birch. Glamis, Rev. J. Stevenson, no. 849.

Flabelliform, from two to three lines across. Though small, it has exactly the structure of the exotic species.

**Thelephora tuberosa*, Grev. t. 178.

Amongst grass and moss. Perthshire, Dr. Buchanan White, Aug. 1877.

We were delighted to receive this interesting species, which does not seem to have occurred since the figure of

Greville was published. The specimens are not quite so tuberous, nor, in general, the branches quite so much flattened as he represents them; but, from the analogy of allied North-American species, there is no doubt about the identity.

1693. *T. crassa*, Lév. Ann. d. Sc. Nat. 1844, ii. p. 209; Bonite, tab. 139. fig. 1.

Berkshire, Sawyer.

Having no type, it is impossible to say positively that it is Lévillé's plant, though the description and figure agree. Widely diffused over soil partially covered with moss, and forming irregular, thick, rounded, umber-brown masses of a velvety aspect but not setulose.

1694. *Corticium cinnamomeum*, Fr. Ep. p. 561.

On birch. Glamis, Rev. J. Stevenson.

1695. *C. citrinum*, Pers. Myc. Eur. p. 136.

On thorn. Perthshire, Dr. Buchanan White.

1696. *C. violaceo-lividum*, Fr. Hym. Eur. p. 655.

On dead wood. Glamis, Rev. J. Stevenson.

1697. *C. limitatum*, Mont. Ann. d. Sc. Nat. 1836; Fr. Ep. p. 565.

On *Cytisus*. Perth, Dr. Buchanan White.

We have no type; but though the extreme ciliated margin is in most places white, the dark zones and dull nodular hymenium are characteristic.

* *C. serum*, Pers.; Fr. Hym. Eur. p. 659.

Some specimens come very close to some states of *Kneiffia setigera*, Fr., to which it is allied. See Hym. Eur. p. 629.

1698. *Cyphella stuppea*, B. & Br. Erumpens, sessilis, pezizæformis, externe stuppea, ex brunneolo albescens; hymenio fusco.

Bursting through the tender cuticle of broom. Rev. M. Anderson, March 1873.

* *Clavaria fusiformis*, Sow. t. 234.

Ballinluig, at 2000 feet. Rev. J. Stevenson.

1699. *Typhula gracillima*, White. Alba, stipite gracillimo curvo glabro; clavula elongata.

On various herbaceous plants. Perthshire, Dr. Buchanan White.

1700. *Dacrymyces vermiformis*, B. & Br. Minuta grisea vermiformis; sporophoris globosis; sporis globosis pallide fuscis.

On rotten wood. Bathford plantations, C. E. Broome, April 1, 1877, also April 28, 1876.

Sporophores .0005 inch in diameter; spores .0002.

PLATE III. fig. 1. *a*, plant *in situ*, magnified; *b*, sporophores with spores, highly magnified.

**Tilmadoche mutabilis*, Rtfki. *Physarum nutans*, Pers.

This is very properly separated by Rostafinski from *Physarum*, in which genus it was always a "vexata quæstio."

1701. *Ostracoderma pulvinatum*, Fr. Syst. Myc. iii. p. 214. Sibbertoft, 1873. On an old sack which had been lying on a dunghill.

Looks at first sight like a white *Diderma* (*Chondrioderma*, Rtfki.), but not gelatinous in a young state.

Spores .0003 inch long.

1702. *Glæosporium Hendersoni*, B. & Br. Hypophyllum, sparsum; gelatina placentiformi; sporis oblongis; nucleo colorato.

On orange-leaves in a conservatory. Milton, Mr. J. Henderson.

Spores .0005–.0006 inch long.

1703. *G. violæ*, B. & Br. Maculis pallidis demum albis; pustulis paucissimis vel solitariis, sporis aurantiacis in matricem effusis.

On leaves of violet. Glamis, Rev. J. Stevenson, no. 893.

The effused spores, especially when developed on large white spots, make it a very striking species.

1704. *Bactridium acutum*, B. & White. Candidum, parasiticum; floccis deorsum attenuatis, apice acutis 1–3-septatis; articulo penultimo tunido. Sc. Nat. iv. p. 162, tab. 2. fig. 4.

On hymenium of *Peziza cochleata*. Perthshire, Dr. Buchanan White.

Distinguished from *Bactridium helvelle* by its constantly very acute apex and attenuated base. A specimen from the same locality sent by Mr. Stevenson had not the same parasite.

PLATE III. fig. 2. Threads, magnified.

1705. *Cylindrosporium longipes*, Preuss, in Sturm, Fl. iii. 29, tab. 35.

On the shell of a walnut. Perthshire, Dr. Buchanan White.

The base of the stem, as in Preuss's figure, is dark, the upper part hyaline and breaking up into cylindrical spores, absolutely truncate at either extremity. This is probably *Chalara fusilioides*, Sacc. Corda's plant seems different, being white throughout.

1706. *Trichobasis Lynchii*, B. in Gard. Chron. Aug. 25, 1877. Maculis parvis pallidis; sporis sparsis raro confluentibus; pseudosporis flavis obovatis pulcherrime echinulatis; stipite brevi.

On a *Spiranthes* from Trinidad. Kew, Mr. R. Irwyn Lynch.

Generically distinct from *Uredo confluens*, var. *orchidis*, and different in habit. *U. gynandrearum*, Cda. iii. tab. 1. fig. 9, agrees in habit; but the spores are dark, and the pustules bullate.

1707. *Ustilago Kuehniana*, Wolff; Fisch. de Wald. Ust. p. 29; Gard. Chron. July 1876.

On *Rumex acetosella* from permanent meadow-land in Mr. Lawes's Park at Rothhamstead, Dr. Gilbert.

Spores $\cdot 00045$ inch long.

1708. *Protomyces Comari*, B. & White. Pustulis fuscis; sporis in cellulis tumidis matricis ternis vel solitariis.

On *Comarum palustre*. Aug. 1877, Loch of Kinordy, Forfarshire, Rev. M. Anderson.

Resembling at first sight *Isothea pustula*, but a true *Protomyces*.

The pustules are far more prominent than in *P. menyanthis*. Spores $\cdot 001$ – $\cdot 0012$ inch long, broadly obovate.

MILESA, White, nov. gen. Peridium incarceratum reticulatum, basi inter cellulas matricis radicans; sporæ obovatae echinulatæ per ostiolum minutum demum emissæ.

1709. *M. polygoni*, B. & White. Sc. Nat. l. c. tab. 2. f. 5.

On the underside of leaves of *Polygonum viviparum*. Glen Tilt, Dr. Buchanan White.

Evidently allied to *Endophyllum*, but distinguished by its reticulated, thoroughly incarcerated peridium, which does not burst irregularly, but discharges its spores by a minute pore. The spores closely resemble those of *Uredo pteridium*, White, $\cdot 0012$ – $\cdot 0017$ inch long. Sc. Nat. l. c. tab. 2. f. 6.

PLATE III. fig. 3. *a*, pseudoperidium with its hyphæ; *b*, ditto, crushed; *c*, single spore. All more or less magnified.

1710. *Isaria sphingum*, Schwein. Car. no. 1298; Fr. Syst. Myc. iii. p. 275.

On pupæ of Diptera. Kincardineshire, Mr. Taylor. Mycelium much branched.

1711. *I. tomentella*, Fr. Syst. l. c. p. 276.

On beech-leaves and mast. Creeping over the leaves, and at length sending up clavate fertile heads.

Colour just that of *Arcyria nutans*.

1712. *Stysanus putredinis*, Cda. iii. tab. 2. fig. 36.

On decayed leaves. Glamis, Rev. J. Stevenson, no. 873.

Spores $\cdot 00025$ – $\cdot 00035$ inch long.

1713. *Stilbum Stevensoni*, B. & Br. Sparsum; stipite

brevissimo nigro; capitulo niveo globoso; sporis minutissimis globosis.

Glamis, Rev. J. Stevenson. Scattered on dead wood, on which it looks like a very minute *Didymium*.

Spores too small to admit of measurement.

1714. *S. orbiculare*, B. & Br. Album; plantulis sparsis gregariis e macula alba pulverulenta oriundis; stipite cylindrico tomentoso apice quandoque velo lacerato ornato; capitulo globoso; sporis oblongis minutis.

On *Lindbladia effusa*. Aviemore, Rev. J. Keith. Forming patches an inch or more in diameter; springing from a white, thin, pulverulent stratum, which is at length stained by the *Lindbladia*.

Spores .0002 inch long.

At first sight it looks like a parasitic *Hydnum*.

PLATE III. fig. 4. *a*, plant, nat. size; *b*, a portion, magnified; *c*, spores of *Lindbladia*; *d*, spores of *Stilbum*, magnified.

**Aegerita candida*, P. Syn. p. 684.

A fawn-coloured form was found at New Pitsligo by the Rev. J. Fergusson and at Killin by the Rev. M. Anderson. A form also occurred at Glamis on herbaceous stems, Stevenson, no. 156. *Crocysporium torulosum*, Bonorden, tab. iv. fig. 90, is evidently the same thing.

**Peronospora violacea*, B. Outl. p. 349.

On petals of *Knautia arvensis*. As some doubt has been expressed about this species, which was found June 30, 1859, it has been thought advisable to give a figure.

PLATE III. fig. 5. Flocci with spores *in situ*, magnified.

**P. calotheca*, De B. Ann. d. Sc. Nat. 1863, p. 111.

On *Asperula odorata*. Rev. J. Fergusson.

1715. *P. affinis*, Rossman, in Rab. Herb. Myc. ii. no. 489.

On *Fumaria*. King's Cliff. Distorting the plant.

1716. *Dactylium cervinum*, B. & Br. Effusum, pallide cervinum; floccis ramosis articulatis; sporis obovatis uniseptatis deorsum apiculatis.

On *Cytisus laburnum*. Ballinluig, Rev. J. Stevenson, no. 989. Lambley, Notts.

1717. *D. spirale*, White. Candidum e macula tosta oriundum, floccis spiralibus simplicibus; sporis magnis uniseptatis medio constrictis, utrinque obtusissimis. Sc. Nat. *l. c.* p. 161, tab. 2. f. 3.

On the underside of leaves of *Polygonum viviparum*. Glen Tilt, Dr. Buchanan White. Forming little white patches

consisting of scattered simple spiral flocci $\cdot 004$ inch high. Sc. Nat. *l. c.* p. 162, tab. 2. f. 2.

Spores $\cdot 0009$ – $\cdot 0012$ inch long, half as wide.

PLATE IV. fig. 6. *a*, plant on leaf, slightly magnified; *b*, threads; *c*, spores, young and mature, highly magnified.

1718. *D. modestum*, White. Candidum e macula tosta oriundum; floccis simplicibus subrectis vel leviter flexuosis; sporis magnis uniseptatis elongatis medio constrictis.

On leaves of *Alchemilla alpina*. Glen Tilt, Dr. Buchanan White.

Closely allied to *D. spirale*, but distinguished not only by the flexuous threads, but the very different spores, which are $\cdot 001$ inch long, one fourth as much wide.

PLATE IV. fig. 7. *a*, threads; *b*, spores, highly magnified.

1719. *Mucor stolonifer*, Ehrb. Sylv. Myc. *Rhizopus nigricans*, Mycetog. tab. xi. 1–7.

On melon. Glamis, Rev. J. Stevenson, no. 712.

1720. *Desmazierella acicola*, Lib. Ann. d. Sc. Nat. 1829, xvii. p. 83, tab. 6. f. 1, 3. Phillips, exsiccata.

Near Shrewsbury, W. Phillips, Esq.

1721. *Helvella atra*, Kön.; Fr. Syst. Myc. ii. p. 19.

Loch Laggan, Dr. Buchanan White.

**Peziza* (Geopyxis) *Percevali*, B. & Cooke, Myc. fig. 192. *P. ciborium* major, Fr. no. 1479.

**P.* (Geopyxis) *ammophila*, Dur. & Lév.; Cooke, Myc. fig. 100. *P. arenaria*, no. 1619.

Dr. Cooke has very properly pointed out that the St.-Andrew's plant is identical with that from Algeria.

1722. *P.* (Sarcoscyphæ) *coprinaria*, Cooke, Myc. fig. 149.

On cow-dung. Batheaston, March 1877.

1723. *P.* (Hymenoscyphæ) *Candolleana*, Lév. Ann. d. Sc. Nat. 1843, xx. p. 232, tab. 7. fig. 4.

Batheaston, C. E. Broome, raised under bell glass from *Sclerotium pustula*.

1724. *P.* (Calycinæ) *albida*, Roberge; Desm. Exs. no. 2004.

On ash-petioles. East Farleigh, Sept. 13, 1876.

1725. *Diatrype coramblycola*, B. & Br. Pustulis elongatis bullatis; ostioliis prominulis asperatis; sporidiis fusiformibus 3–4-nucleatis.

On cabbage-stalks. Forres, Rev. J. Keith, Apr. 17, 1875.

Sporidia $\cdot 00035$ long. Probably not an uncommon species.

1726. *Eutypa aspera*, Fr. sub *S. eutypa*, b, Syst. Myc. ii. p. 478.

On wood. Glamis, Rev. J. Stevenson, no. 880.

1727. *Sphaeria maculans*, Desm. Exs. no. 1784.

On stalks of dead *Brassicæ*. Perth, Dr. Buchanan White. Sporidia yellow, $\cdot 0014$ – $\cdot 002$ long, multiseptate.

1728. *S. Stevensoni*, B. & Br. Peritheciis sparsis hic illic congestis ovatis sursum attenuatis; ascis gracilibus; sporidiis uniseriatis, anguste ellipticis, 2–3-nucleatis.

On dead wood. Glamis, Rev. J. Stevenson, no. 869.

Sporidia $\cdot 0002$ inch long.

**Chaetosphaeria innumera*, Tul. Sel. Fung. Carp. ii. p. 253, tab. xxxiii. *S. innumera*, B. & Br. Out. p. 395.

On dead wood. Rev. J. Stevenson. Glamis, no. 870.

Sporidia $\cdot 0003$ – $\cdot 00035$ inch long.

1729. *Cephalotheca sulfurea*, Fuckel, Fung. Rhen. no. 2313. Peritheciis sparsis gregariis, globosis, villo sulfurco tectis, demum vertice glabris atrisque, denique totis glabris et mox diffractis; sporidiis ovatis, hyphis ascigeris multiguttulatis.

On a rotten board in Mr. Spencer Perceval's grape-house, Clifton, April 1876.

PLATE IV. fig. 8. *a*, plant *in situ*, magnified; *b*, dark rigid hairs and various threads; *c*, structure of the perithecium; *d*, sporangia; *e*, sporidia; *f*, young perithecium produced within the old one.

The specific character given above is copied from Fuckel. The sporangia produced within the perithecia on the hypha are something quite different from anything which occurs in *Sphaeriacei*; and perhaps it is better to consider them as asci, though even then their mode of development is abnormal. Not less curious is the product of a new perithecium within the old one. The structure, too, of the perithecium is very singular.

**Dothidea betulina*, Fr. Syst. ii. p. 554.

Glamis, Rev. J. Stevenson, July 6, 1874.

Stylospores uniseptate, $\cdot 001$ inch long.

**Phacidium Vaccinii*, Fr. Syst. ii. p. 575.

Stylosporous state forming little crowded dark specks, containing *Bacteria*-like bodies, $\cdot 00016$ inch long.

1730. *Ascochyta metulæspora*, B. & Br. Maculis orbicularibus fuscis, peritheciis minutis pallidis, sporis metulæformibus.

On leaves of ash. Ballinluig, Rev. J. Stevenson, no. 908.

The shape of the spores is singular, like that of the pieces of wood with which boys play called tipcats (*bâtonnets* Gall.).